

CAT 2015 QA Slot 2 Question Paper with Solutions

Time Allowed :2 Hours	Maximum Marks :198	Total Questions :66
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General Instructions

Read the following instructions very carefully:

1. The total duration of the test is **2 hours**, with **40 minutes** allotted per section.
2. The question paper is divided into **three sections**:
 - **Section 1:** Verbal Ability and Reading Comprehension (VARC) – 24 questions
 - **Section 2:** Data Interpretation and Logical Reasoning (DILR) – 20 questions
 - **Section 3:** Quantitative Aptitude (QA) – 22 questions
3. Each correct answer carries **+3 marks**.
4. For multiple-choice questions (MCQs), **–1 mark** will be deducted for each wrong answer.
5. There is **no negative marking** for Type-in-the-Answer (TITA) questions.
6. Once the allotted time for a section ends, you will automatically move to the next section. You cannot go back to a previous section.
7. All answers must be entered on the computer screen using the mouse and keyboard. Rough sheets will be provided.
8. The use of calculators, mobile phones, or any other electronic device is strictly prohibited. An on-screen basic calculator will be provided.

1 Quantitative Ability

1. A shopkeeper sells an item at a 20% profit. If the cost price is increased by 10% and the selling price by Rs. 10, the profit percentage becomes 15%. What is the original cost price?

- (a) Rs. 100
 - (b) Rs. 150
 - (c) Rs. 200
 - (d) Rs. 250
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2. A car travels from A to B at 60 km/h and returns at 40 km/h. What is the average speed for the round trip?

- (a) 48 km/h
 - (b) 50 km/h
 - (c) 52 km/h
 - (d) 45 km/h
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3. A and B can complete a task in 12 days, B and C in 15 days, A and C in 20 days. How many days will A alone take?

- (a) 20
 - (b) 30
 - (c) 40
 - (d) 60
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4. A bag contains 4 red, 3 white, and 2 blue balls. Two balls are drawn at random. What is the probability that both are red?

- (a) $\frac{1}{6}$
 - (b) $\frac{1}{12}$
 - (c) $\frac{1}{9}$
 - (d) $\frac{2}{9}$
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5. The sum of the ages of a father and son is 50 years. Five years ago, the father's age was four times the son's age. What is the father's current age?

- (a) 35
 - (b) 40
 - (c) 45
 - (d) 50
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6. A rectangle has an area of 60 cm^2 and a perimeter of 32 cm. What is the length if it is greater than the width?

- (a) 10 cm
 - (b) 12 cm
 - (c) 14 cm
 - (d) 16 cm
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7. A sum of Rs. 10,000 is invested at 5% per annum compound interest for 2 years. What is the total amount?

- (a) Rs. 11,000
 - (b) Rs. 11,025
 - (c) Rs. 11,050
 - (d) Rs. 11,100
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8. In a class, 60% of students are boys, and 40% are girls. If 30% of boys and 20% of girls passed an exam, what percentage of the class passed?

- (a) 26%
 - (b) 28%
 - (c) 30%
 - (d) 32%
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9. A man can row at 6 km/h in still water. If the river flows at 2 km/h and it takes him 1 hour to row to a place and return, what is the distance to the place?

- (a) 2 km
 - (b) 2.5 km
 - (c) 3 km
 - (d) 4 km
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10. If $x^2 - 5x + 6 = 0$, what is the sum of the roots?

- (a) 3
 - (b) 5
 - (c) 6
 - (d) 8
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11. The ratio of two numbers is 3:4. If their sum is 70, what is the larger number?

- (a) 30
 - (b) 40
 - (c) 50
 - (d) 60
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12. A train travels 360 km in 4 hours. What is its speed in km/h?

- (a) 80
 - (b) 90
 - (c) 100
 - (d) 120
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13. If $\log_2 x + \log_2(x - 2) = 3$, what is x ?

- (a) 2
 - (b) 3
 - (c) 4
 - (d) 6
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14. The area of a circle is 154 cm^2 . What is its radius? (Use $\pi = \frac{22}{7}$)

- (a) 5 cm
 - (b) 6 cm
 - (c) 7 cm
 - (d) 8 cm
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15. A and B start a business with investments of Rs. 4000 and Rs. 6000. If the profit after 1 year is Rs. 5000, what is A's share?

- (a) Rs. 2000
 - (b) Rs. 2500
 - (c) Rs. 3000
 - (d) Rs. 3500
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16. If $2x + 3y = 12$ and $x - y = 1$, what is the value of x ?

- (a) 3
 - (b) 4
 - (c) 5
 - (d) 6
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17. What is the sum of the first 20 terms of the arithmetic sequence 3, 7, 11, ...?

- (a) 800
 - (b) 820
 - (c) 840
 - (d) 860
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18. If $\sin \theta + \cos \theta = \sqrt{2}$, what is $\sin \theta \cos \theta$?

- (a) $\frac{1}{2}$
 - (b) $\frac{1}{4}$
 - (c) $\frac{1}{3}$
 - (d) $\frac{1}{6}$
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19. A number when divided by 7 leaves a remainder of 4. What is the remainder when the square of the number is divided by 7?

- (a) 1
 - (b) 2
 - (c) 3
 - (d) 4
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20. A pipe can fill a tank in 6 hours, and another pipe can empty it in 8 hours. If both are opened together, how many hours will it take to fill the tank? (Enter the answer as a fraction or decimal.)
